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CLAIMS

1.   A method of detecting an orientation of a device (1) with respect to a direction of an acceleration force, comprising:

providing a device (1) having an optical device (10) comprising a first liquid (A) and a second liquid (B), said liquids (A; B) being immiscible, having different refractive indices and different densities and being in contact with each other via an interface (14); and a sensor (20) comprising a grid of pixels (22);

sensing an image captured by the optical device (10) on a subset (24, 24') of the grid of pixels (22); and

calculating the orientation of the device (1) from the position of the subset (24, 24') on the grid (22).

2.   A method as claimed in claim 1, wherein the acceleration force is gravity.

3.   A device (1) comprising:

an optical device (10) comprising a first liquid (A) and a second liquid (B), said liquids being immiscible, having different refractive indices and different densities and being in contact with each other via an interface (14);

a sensor (20) comprising a grid of pixels (22), the sensor (20) being arranged to sense an image captured by the optical device (10) on a subset (24, 24') of the grid of pixels (22); and

calculating means (30) for calculating an orientation of the device (1) with respect to a direction of an acceleration force from the position of the subset (24, 24') on the grid (22).

4.   A device (1) as claimed in claim 3, wherein the first liquid (A) is an electrically susceptible liquid.

5.   A device (1) as claimed in claim 4, wherein the optical device (10) further comprises an electrode structure (11, 12) in conductive contact with the first liquid (A), and wherein the device (1) further comprises driver circuitry (40) coupled to the electrode structure (11, 12).

6.   A device (1) as claimed in any of the claims 3-5, wherein the second liquid (B) comprises a mixture of oils.

7.   A device (1) as claimed in any of the claims 3-6, wherein the calculating means comprise a memory element for storing calibration data, the calculating means being arranged to calculate the orientation using the calibration data.

8.   A device (1) as claimed in any of the claims 3-7, further comprising a light source (50) in front of the optical device (10).

9.   A device (1) as claimed in claim 8, wherein the light source (50) is removable.

10.   A device as claimed in claim 3, wherein the acceleration force is gravity.